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Patent and Trademark Resource Center Websites: A Content Analysis

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Abstract

Patent and Trademark Resource Centers (PTRCs) serve as an off-site connection to the United States Patent and Trademark Office (USPTO). Approximately 85 PTRCs exist to assist inventors, entrepreneurs, and researchers by providing facilities, resources, and expertise. Most of these libraries also have a website which, in addition to USPTO webpages, serves as a gateway to the world of patent and trademark research. These websites provide access to various resources while also functioning as an outreach tool to the public. This study included a content analysis of 79 websites belonging to PTRC libraries. After a literature review of other website studies, the researcher came up with 173 criteria to analyze on each library's patent and trademark website. Data includes specific resources listed, timeliness of information, website find-ability, and an analysis of URLs. This article will report findings and suggest best practices through standardizing nomenclature, content, and layout of patent and trademark websites.

Introduction

Patent research has been an essential part of the patent application process since the first patent law was passed in 1790, essentially establishing the beginnings of a U.S. patent system. Patent records, however, have not always been as accessible as they are today. Following the Patent Act of 1790, a potential inventor who wished to research previously granted patents traveled to Washington D.C., where, as referenced by Dobyns, the public were welcome to inspect patent models at the Patent Office (1994). In 1826, the *Journal of the Franklin Institute* made patent abstracts and sometimes full text of recently issued patents available for the price of a subscription anywhere in the country (Dobyns, 1994).

Patent research was made more accessible when, in 1871, the precursor to the modern day Patent and Trademark Resource Center Program was founded when "federal statute (35 USC 12) first provided for the distribution of printed patents to libraries for use by the public" (Patent and Trademark, 2017). This program has given inventors opportunities closer to home in which to perform research and ensure that nobody has previously been granted a patent similar to theirs. The program has expanded its geographic and topical reach over the years, allowing even more inventors and businesses to have resources at their fingertips. The public can visit the USPTO, now located in Alexandria, Virginia, which has a Public Search Facility that provides access to patent and trademark information in online, microfilm, and print formats (Public Search Facility, 2020). Patent and Trademark Resource Centers around the country provide access to similar resources, which includes examiner-based patent search systems as well as literature and other useful resources. Equipped with the valuable knowledge obtained at the Annual PTRCP Seminar at USPTO Headquarters, PTRC representatives also

educate their local patrons on the application and search processes related to patents and trademarks.

In addition to the ability to visit one of approximately 85 PTRCs, which may be academic, public, special, or state libraries, patent and trademark researchers may also choose to access these libraries' websites. Unlike the 1800s, researchers today can watch online tutorials, read electronic books, and look at prior art (including previously granted patents) all online. McGillis and Toms stated that a library's website is its "virtual public face", equating it to the front door, collections, services, and its people (2001). Most PTRCs (79 of 83, or 95.18%) have a web presence.

The goal of this research project was to find commonalities and unique features when comparing both content and design of all patent and trademark webpages from libraries who were PTRCs at the time this research project began. There are no guidelines for what PTRCs should include on their websites, and comparisons may reflect this. The author expected to find generally accepted USPTO resources supporting patent and trademark research on the majority of PTRC websites with the anticipation that listed resources would reflect on the local needs of the patrons using individual libraries in their respective geographic location. The author also hoped to identify best practices and give any library or organization providing assistance to patent and trademark researchers suggestions on what to include on their websites.

Literature Review

The author reviewed several web content analysis articles (Aharony, 2012; Dasgupta and Gupta, 2019; Hugar, 2019; Huizingh, 2000; McGillis and Toms, 2001; Michalec, 2006; Osorio, 2001; Qutab and Mahmood, 2009; Rod-Welch, 2012) at the beginning of the research planning process to identify categories and criteria for inclusion in the study. Most of these researchers also used methodologies from previous website analyses to help guide their projects.

Michalec (2006), Huizingh (2000), and Osorio (2001) were specific in their focus on both content and design features, which was replicated by this researcher. Aharony (2012), Qutab and Mahmood (2009), and Hugar (2019) had numerous criteria in common that were used in this project, including categorized checklists, age of information, library information (hours and contact information), and a listing of electronic resources.

This PTRC web study included social media presence, which was also in studies performed by Rod-Welch (2012) and Dasgupta and Gupta (2019), while analyzing websites belonging to ARL libraries and Engineering libraries, respectively. Aharony (2012) included Web 2.0 elements in her research in the form of RSS feeds. She also looked at the inclusion of Ask A Librarian, as did Osorio (2001), while Hugar (2019) included the online library chat feature. In addition, Hugar (2019) looked at the existence of web-based tutorials.

Qutab and Mahmood (2009) and Osorio (2001) both looked at graphics. A unique criterion among the group of studies was findability, or the number of clicks it takes to get to a specific page from the homepage (Qutab and Mahmood, 2009), which was used in the PTRC study. Another form of findability is the ease of finding information on a webpage, which can be directly tied to the amount of scrolling one must do; Osorio (2001) looked at this criterion. Another characteristic this researcher used from the Michalec (2006) study was recording how simple and memorable the webpages' URLs were by observing the number and existence of descriptive characters.

Methodology

Sample

With a list of desired libraries residing on the USPTO's website, the identification of a sample set for this study may have been an easier task than for previous studies. The list included links to webpages at libraries that were Patent and Trademark Resource Centers at the beginning of the project.

As there were 83 PTRCs at the time, this is how many links were gathered from the USPTO website (Figure 1). During this data collection, it was determined that four of the initial libraries would not be included in this study. Three of the libraries had no webpages whose main focus was patents and/or trademarks and the fourth ceased participation in the PTRC Program; therefore, no website was available for analysis. From the 79 total PTRC websites analyzed, a total of 394 webpages were assessed over a 3-year period. In addition to assessing patent and trademark webpages, the researcher also included in this study

educational webpages on intellectual property and copyright.

Figure 1. Map of Patent and Trademark Resource Centers. Reprinted from PTRC Locations By State, in USPTO Learning and Resources, 2014, Retrieved from https://www.uspto.gov.

Of the 79 websites analyzed, the following are the types of pages listed on the PTRC Program's site, which were provided by PTRC representatives: 73.42% were a PTRC/Patent & Trademark page, 7.59% were a broader intellectual property page, while 6.33% were to a main library page and another 6.33% were categorized as "other" (including broken links, a science and technology page, a subject guide directory, and a reference page).

Tools

Several online tools were used for data collection and analysis of webpages in this study. Wordle.net was used to account for the highest occurrence of words on the respective PTRCs' main webpages while Google was used to perform sample searches to analyze findability of webpages. The author used Google Chrome's incognito feature so as not to include any cached content, cookies, or other web historical content that might affect search results. Search results were limited to five results pages, or 50 total results. Google Chrome's translation feature was

also used as webpages from the two Puerto Rican PTRCs were in Spanish. Microsoft Word's "word count" feature was used to assess total content on PTRC main pages. Google Chrome's "Check My Links" extension, which, according to the company's website, is typically used by "web designers, developers, and content editors," (Check My Links, 2019) was used to account for dead links on the PTRC main pages. While using all of these resources to gather data, responses were recorded by the author while observing each relevant webpage. The author had experience with and an account for SurveyMonkey, thus it was the instrument used for quantitative and qualitative data gathering and analysis.

Survey

The author designed a survey (Appendix A) within SurveyMonkey to record findings in an organized fashion while having the ability to analyze the data with filters and other built-in tools. The survey contained 44 questions that included 173 possible data points and was broken up into the following sections:

- Background (about the library, IP pages, and their URLs)
- Resources (patent and trademark databases, websites, books, videos, etc.)
- Informative (definition of patents and trademarks, copyright, inventor assistance, etc.)
- Library/Librarian Information Found on Webpages
- Website Design, Navigation, and Content (dead links, social media, timeliness, URL analysis, webpage findability)

Of the 173 data points, there were 122 criteria from which to choose, 11 opportunities to add a response that was not included ("other"), 34 open-ended responses, and six comment boxes. For some categories, multiple responses could have been applied (ex: multiple databases available at the library) while others consisted of information where only one response would have been possible (ex: yes or no).

Results and Discussion

The author meticulously reviewed these 173 data points on 394 webpages from 79 PTRCs (see Appendix B for complete list). This equated to an average of 4.99 pages per library with a standard deviation of 4.96. The highest number of webpages viewed on a single PTRC site was 24 with one being the fewest. Seventy of the 79 libraries in the study had fewer than 10 pages and those averaged 3.47 pages per website with a standard deviation of 2.17, providing a better idea of a typical web presence among the PTRC websites.

The PTRCs whose websites were studied consisted of college or university libraries (53.43%), city or county public libraries (35.44%), state libraries (7.59%), and special libraries (2.53%). Of the 15 that were subject-specific libraries, nine had an engineering component, seven had science, one was business, and one was law. Some were both science and engineering libraries.

There were several titles in the names of the webpages that were analyzed, all of which mainly focused on intellectual property, more so on patents and trademarks. These included pages that were strictly PTRC pages, or solely patents or trademarks, copyright, intellectual property, technology transfer, inventor resources, tutorials, invention promotion scams, and others. In addition to these pages, the author observed the mention of patents and trademarks on many more webpages that were not included in this research. These included but were not limited to class guides for subjects one might expect such as various disciplines of Engineering, Agriculture, Physics, Chemistry, Law and Government Documents, Nanotechnology, Business, and Food Science, but also included some surprises such as History, English, Poetry, African Heritage, Journalism, and Genealogy. Other webpages with patent and trademark content included 3D printing, standards, Special Collections, library services, citation analysis, open access, scholarly communication, and college and career advancement.

Design

The author focused on both design and content elements of the observed webpages. Design features included information related to the layout, URL, findability, timeliness of information, and other

observations about the webpages that were not specific to resources or subject content.

One such observation was mode of navigation through PTRC websites. Over half of the PTRC websites that were analyzed used tabs along the top of the page (89.87%), breadcrumbs (73.42%), or side menu navigation (59.49%) while fewer used dropdown menus (46%) or tables of contents (19%).

The author also observed the amount of text and graphics on PTRC webpages. There was an average of 680.46 words on each page with a maximum of 2,544 and minimum of 192. Observed webpages averaged 1.94 images with a maximum of 12 and minimum of 0. While viewing many webpages during this study, it was evident that with fewer words (and less required scrolling), information was more easily found. Keeping images to a minimum was also helpful.

Web 2.0 and social media presence was also recorded. It was found that most PTRC webpages have such a presence with Facebook, Twitter, and YouTube being the most popular. The 10 platforms that appeared most frequently can be found in Table 1.

Table 1.

FREQUENCY OF WEB 2.0/SOCIAL MEDIA PLATFORMS ON PTRC WEBPAGES

	Platform	**Frequency**
1	Facebook	92.73%
2	Twitter	87.27%
3	YouTube	58.18%
4	Pinterest	32.73%
5	Flickr	32.73%
6	Instagram	27.85%
7	Google Plus	23.64%
8	RSS feed	16.46%
9	Tumblr	16.36%
10	LinkedIn	10.91%

Timeliness

One desired trait of web content is that it contains current information. A data point gathered by the author included the date the oldest page with patent and/or trademark content was updated. The age of the content was then determined by taking the difference between the date the page was viewed and the date of last update. Forty-eight PTRC websites (60.76%) contained a webpage with a date of last update, and of these, 36 were LibGuides, 6 were blogs, and 13 were "regular" webpages.

The average age of the oldest content found on patent and trademark LibGuides was 64.36 days (σ=103.73). The minimum in this set was zero days, meaning the content had been updated the day the webpage was viewed, and the maximum was 401 days. After removing the six LibGuides which had not been updated in over 100 days (included a mix of academic, public and state libraries), the average came down to 22.27 days (σ=28.66).

The data for blogs and regular websites was not statistically significant due to a wide range of values, which was as low as three days and as high as 13+ years. While the LibGuides were mostly used to list resources and provide information on intellectual property, websites and blogs were used for varying purposes, which included announcements of workshops. Blog posts typically remain static; given that fact and with numerous workshop announcements not taken down, this accounts for older web content than one would find on LibGuides.

Findability

The ability to find data is just as important as its age. The researcher explored two measures of findability: 1) ease of finding content via a web search and 2) ease of finding content from the PTRC library's homepage. To measure web findability, the researcher executed four search strategies, using the following search terms in an "Incognito" Google search:

- "institution name" + library + patent
- "institution name" + library + trademark
- "institution name" + library + ptrc
- "institution name" + library + patent trademark resource center

The researcher looked among the search results for a patent and/or trademark webpage from that institution's PTRC and assigned a score between 1-51 for where the link appeared on the results list. A score of one meant that the first result was a PTRC page while a score of 51 meant that after reviewing the first five pages (10 results each), no content from the PTRC appeared.

Findings showed that PTRC content from academic libraries were more discoverable. Out of 79 websites, 40.51% had their content come up first for all four search queries, with 71.88% of those being academic libraries. A total of 53.49% of academic libraries scored all 1's.

Some commonalities among academic PTRCs that may make them more discoverable and may be worth trying include:

- Listing PatFT (95.65% of academics compared with 64.29% of public)
- Identifying as a PTRC (100% of academics compared with 92.86% of public)
- Listing TESS (91.30% of academics compared with 50% of public)
- Using LibGuides (91.30% of academics compared with 10.71% of public)
- Using descriptive URLs (86.05% of academics compared with 78.57% of public)

The researcher also looked at ease of finding patent and trademark information on a PTRC institution's homepage. It took an average of 2.38 hyperlink clicks to get to this information. This number remained consistent across the four different types of libraries in the study, with the maximum number of clicks (10) coming from an academic library and all library types having at least one library that only required one click. Although this may make it seem like it was easy for the author to locate all the PTRC webpages when starting from the institution's homepage, this was not always the case. This researcher encountered similar troubles as Michalec (2006) had in locating art library websites, when she stated that "some are buried within the parent institution's web site without sufficient navigational links to locate them easily" (p. 52).

Another problem the author encountered was numerous broken links. One webpage had 207 broken links while others had none. When discounting this high outlier, PTRC webpages averaged 0.91 broken links per page.

URLs

A factor that may affect the findability of a webpage is the level of description within the URL, as opposed to containing random characters. The author recorded both descriptiveness and length of URLs for the links that were listed on the USPTO webpage. Four categories of descriptiveness had the following levels of appearance:

- 83.54% had characters that identified the page as PTRC, Patent, Trademark, or Intellectual Property.
- 8.86% went to one of these types of pages but were not identified as such in the URL and had random characters.
- 3.80% went to one of these types of pages, were not identified as such but were LibGuides with a friendly URL that wasn't shared with the PTRC Program.
- 2.53% went to their library's homepage.

The average URL length observed was 48.27 characters with the smallest containing 20 characters and the longest being 111. Among the 54 URLs with 50 or fewer characters, those averaged 38.19 characters with a maximum of 50 and minimum of 20.

Content

In addition to design elements of PTRC webpages, much data was collected on the substance of patent and trademark websites, which included varying types of resources and information.

In analyzing the most prevalent words that appeared on the webpages listed on the PTRC Program's website using Wordle, the results (Table 2)

were not surprising. "Patent" was the most popular word on 42 of the 79 webpages analyzed and was in the top three most common words on 66 of the webpages. The word "library" came next, appearing most on 14 webpages and among the top three on 39 pages, while "trademark" rounded out the top three appearing most on only two webpages, but among the top three on 36 pages.

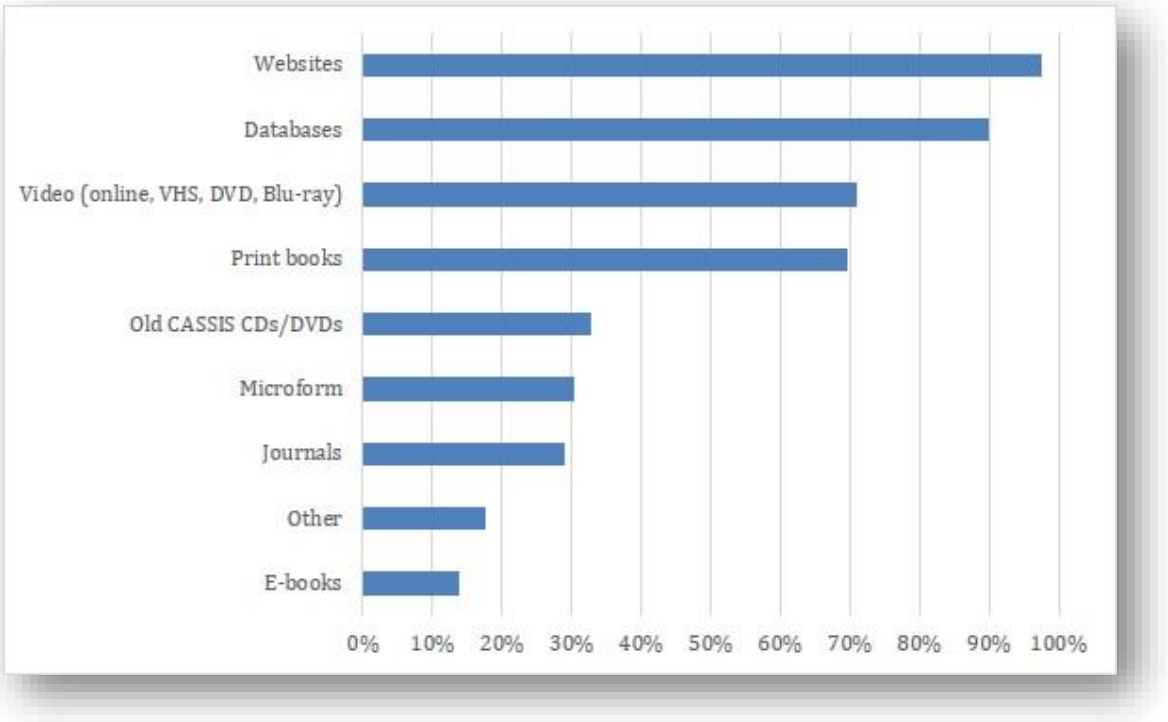
Table 2

MOST COMMONLY USED WORDS ON PTRC WEBPAGES

Words	Highest Frequency	2nd Highest Frequency	3rd Highest Frequency	Among Top 3
"Patent"	42	16	8	**66**
"Library"	14	17	8	**39**
"Trademark"	2	18	16	**36**
Library Identifying Name (City, State, University, etc.)	7	8	9	**24**
Others	8	1	6	**15**
Subject (Engineering, Business, Law)	1	4	4	**9**
"Search"	1	2	6	**9**
"PTRC"	2	1	1	**4**
"State"	1	1	2	**4**
"USPTO"	1	2	1	**4**

Note. Results obtained by using Wordle

The most common types of resources found on PTRC pages were websites (97.47%), databases (89.87%), videos (70.89%), and print books (69.62%). More can be seen on Figure 2. Although patent records have been available online for some time, many PTRCs (32.91%) still had the old CASSIS discs listed. These were CDs and DVDs and required special software for viewing patent documents. Another old technology, microforms, were also listed (30.38%), but this was no surprise to the author. Librarians from the PTRC Program often point out that microforms are a great format for archival storage and recommend keeping these materials.



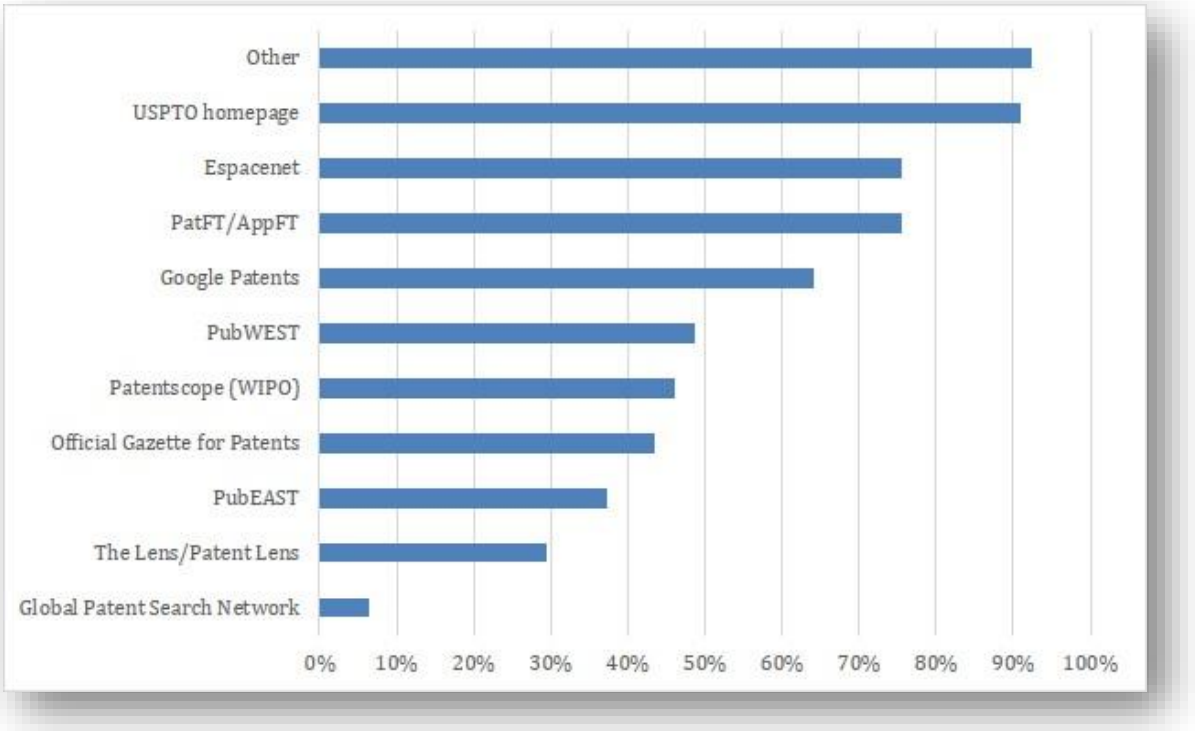
Note. The most common resources listed under "Other" included catalog searches and print plant patents.

Figure 2. Types of Materials Listed on PTRC Webpages

Many of the resources listed on PTRC webpages are available at no cost to the public; however, many PTRC libraries (20.25%) did list several proprietary patent or trademark databases that can be useful for more advanced searching and analysis. Fifty-six percent of those libraries had Derwent Innovations Index, by far the most popular among those listed. Thirty-five percent of PTRC libraries also included supplemental topical or literary databases; 78.57% of these were academic libraries. The most common of these were in the science, engineering, business, or legal disciplines and included SciFinder (32.14%), Web of Science (28.57%), Lexis Nexis/Nexis Uni (25%), Scopus (17.86%), and Reaxys (17.86%).

Tutorials are a resource that were available for both patent and trademark research. Nearly 85% of PTRCs had some sort of tutorial on their website. This could have been a link, image, or tutorial residing on the website. Most of these (82.09%) were links to video tutorials that were not created by their own library while 74.63% were non-video tutorials which were created by someone else. Among the most common of the tutorials was the Seven Step Strategy for Patent Searching (82.09%), which existed in both video and non-video formats. The trademark equivalent to that tutorial appeared far less (24.05%). Twenty-seven percent of the video tutorials created elsewhere consisted of the TMIN (Trademark Information Network) videos, which are news broadcast style videos that cover various trademark topics and filing tips.

When looking at patent resources, the most common to appear on PTRC pages were the USPTO homepage (91.03%), Espacenet (75.64%), PatFT/AppFT (75.64%), and Google Patents (64.1%). These are all widely known and used resources and make sense to appear so frequently. Resources the author had not listed on the survey but which appeared often were foreign patent and trademark offices, classification pages, and Freepatentsonline.com. More resources are listed on Figure 3.



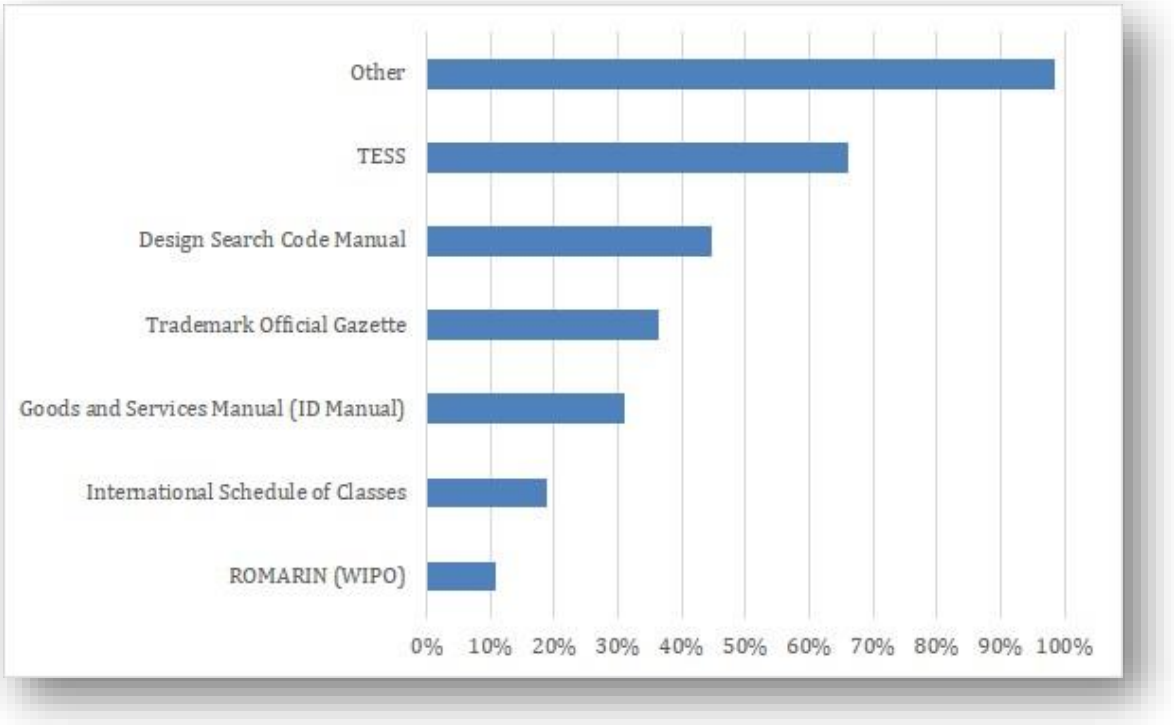
Note. The most common resources listed under "Other" included (in order by highest occurrence) foreign patent and trademark offices, classification, Freepatentsonline.com, fee schedules, General Information Concerning Patents, forms, inventor groups, and CASSIS discs.

Figure 3. Patent Resources Listed on PTRC Webpages

Twenty percent of PTRC websites had a resource that listed local patents. With articles such as those written by Wesolek, Comfort, and Bodenheimer (2015) and Carlson and Spiro (2015) on adding patents granted to local inventors into one's institutional repository, one might expect more libraries to jump on board, as was done at this author's institution (http://oaktrust.library.tamu.edu).

In addition to resources, PTRC websites also included educational information on patents such as a definition (59.49%), mentioning the different types of patents (utility-58.23%, design-50.63%, plant-51.90%), and providing sample patents or trademarks (36.71%). Approximately 30% referred to CPC (Cooperative Patent Classification) while 16.46% spoke of the AIA (America Invents Act).

The most common trademark resources to appear (Figure 4) were TESS (66.22%), Design Search Code Manual (44.59%), Trademark Official Gazette (36.49%), and the ID Manual (31.08%). It served as no surprise that TESS (Trademark Electronic Search System) appeared most frequently as this is the tool used for searching granted trademarks. Resources that appeared more often than expected included resources from Secretary of State webpages, WIPO (World Intellectual Property Organization), TMEP (Trademark Manual of Examining Procedure), and TARR (Trademark Application and Registration Retrieval). Looking back, it makes sense that libraries listed tools necessary in the trademark filing process, such as TEAS (Trademark Electronic Application System) and TSDR (Trademark Status and Document Retrieval).



Note. The most common resources listed under "Other" included state-level resources from Secretary of State webpages, TEAS, WIPO, TMEP, TARR, TSDR, and the USPTO's Trademark Basics webpage.

Figure 4. Trademark Resources Listed on PTRC webpages

Many PTRC websites included additional valuable information such as the definition of a trademark (53.16%) as well as mention of less common marks, including service (36.71%), sound (17.72%), and color (6.33%). Almost 13% discussed or displayed trademark symbols.

Information on PTRC websites was not limited to solely patent and trademark content. A small sample of these sites included an explanation of intellectual property (17.72%), 18.99% mentioned trade secrets, and many more provided information on copyrights (79.75%). A majority of PTRC libraries listed additional sources of assistance, including USPTO/inventor assistance (72.15%), information on how to find an attorney (70.89%), and workshops/programming (30.38%).

Conclusion

During this research project, it was found that 79 PTRCs discovered 79 different ways to provide information via their websites to their patrons. Given the diverse needs of people in different geographic regions with varying purposes for information, differences were to be expected. However, patrons would benefit if websites from all PTRCs contained certain attributes, including 1) an overview of the different types of intellectual property, 2) patent and trademark search strategies and tools, 3) contact information, and 4) a link to the USPTO homepage. In addition to databases, the USPTO site contains a large amount of guidance in the form of manuals, policies, fee and payment information, and how to file for a patent or trademark. While this information is essential, equally as important is the local support provided on each PTRC webpage in the form of one-on-one assistance, workshops, local patent databases, and local inventor groups and attorneys.

Upon reviewing hundreds of webpages during this study, it is evident that Patent and Trademark Resource Centers do an excellent job at promoting their services and resources. Numerous observations were made over the course of this project, which

resulted in the following tips for anyone who manages patent and trademark web content:

- **Make clear what you can and cannot do for visitors to your PTRC**. – Fifty-seven percent of PTRCs had an official disclaimer on the site, and per advice from the USPTO, this number should be 100%. This message should at least state that library staff cannot provide legal advice, including patentability of a patron's idea.
- **Make it easy to get contact information.** – Eighty-one percent of PTRCs listed the name of at least one person to go to for help while 86% listed some form of contact information. The author realizes that this can sometimes be out of one's control, especially in non-academic libraries, but libraries should make an effort to ensure the public can reach them.
- **Place a link to the PTRC webpage on the library's or institution's main page.** – This only happened on 20.51% of the analyzed sites, and those appearing deeper on an organization's website were exponentially harder to locate. It is also helpful, especially when using LibGuides, when the PTRC page is categorized under Services or another relevant subject rather than being placed among all guides with no organization.
- **Ensure the link on the USPTO PTRC page goes to your patent and trademark page.** – Close to 20% of PTRCs did not have their patent and trademark page link on the USPTO directory page. This is often a starting point for inventors, and library professionals should make it easy to find them.
- **Check your PTRC webpages for outdated content.** – Although many resources and services have remained the same over the past several years, PTRCs do have an obligation to provide the public with the most timely information. It was found that 37% of PTRC websites still used the language "PTDL" or "Depository Library" instead of "PTRC" or "Resource Center", a change that occurred in 2011. Fourteen percent still listed the resource TARR, which was replaced by TSDR back in 2012. One PTRC still had an old Arlington address for the USPTO, whose headquarters moved to Alexandria in 2003.
- **There is no need to reinvent the wheel.** – When creating or revising a PTRC website, take advantage of the network of PTRCs by reviewing their web content. The experienced professionals at the PTRCP Office are also a key resource.

These tips as well as much of this article came as a result of the hard work of library professionals at the approximately 85 PTRCs in the United States. The intention of this study was to aggregate the knowledge held and shared by the collective PTRC community to demonstrate best practices in the design and content of their webpages as they strive to provide the best gateways to patent and trademark information for their patrons.

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Appendix A: Internal Survey Instrument

Patent and Trademark Resource Center Websites: A Content Analysis

Background

1. Information about library

Institution Name (for academics - ex: Texas A&M University)

Organization (for non-academics - ex: for Miami-Dade Public Library, Miami-Dade County would be the organization)

City

State

2. Type of library

- College or University Library
- City or County Public Library
- State Library
- Special Library

3. If a subject-specific library, what type?

- Business
- Engineering
- Law
- Science
- Other (please specify)

4. Information about URL from PTRC map (refer to spreadsheet)

Link from map
(ex: http://www.uspto.gov/products/library/ptdl/locations/charlotteptrc.jsp)

Actual site URL
(ex: http://library.uncc.edu/patents)

Forwarded URL - the website you are actually looking at
(ex: http://guides.library.uncc.edu/patents)

5. To which of the following does the link from the PTRC map go?

- ◯ PTRC page
- ◯ Patent page
- ◯ Trademark page
- ◯ Patent & Trademark page
- ◯ Library main page
- ◯ University main page
- ◯ City/County/State main page
- ◯ IP page
- ◯ Government Information page
- ◯ Business page (Entrepreneurship, Management, etc.)
- ◯ Engineering page (any type of Engineering)
- ◯ Sciences page (any of the Sciences)
- ◯ Other (please specify)

6. How many pages with IP content as main focus? Include what was linked from the PTRC map if it contains P&T info, even if that is not that main topic of the page. (search for pages with words patent, trademark, copyright, and intellectual property)

If you have multiple pages where IP/P&T content is the main focus (in addition to the one you listed above), please list them in the questions below. If the map didn't take you to the main PTRC/Patent page, this would be the place to list it. There are 5 questions below for listing 5 additional webpages. If you have more to list, please enter them in the text box following those questions.

7. Additional webpages being analyzed (besides those listed on PTRC map). For example, if the link on the PTRC map takes you to your PTRC main page but you have a separate Patent page and a separate Trademark page, list those below and analyze them. If the link takes you to the main website for your city, you would want to list below your PTRC page and/or any others where you have P&T resources.

Page name/topic

Page URL

8. Additional webpages being analyzed (besides those listed on PTRC map). For example, if the link on the PTRC map takes you to your PTRC main page but you have a separate Patent page and a separate Trademark page, list those below and analyze them. If the link takes you to the main website for your city, you would want to list below your PTRC page and/or any others where you have P&T resources.

Page name/topic

Page URL

9. Additional webpages being analyzed (besides those listed on PTRC map). For example, if the link on the PTRC map takes you to your PTRC main page but you have a separate Patent page and a separate Trademark page, list those below and analyze them. If the link takes you to the main website for your city, you would want to list below your PTRC page and/or any others where you have P&T resources.

Page name/topic

Page URL

10. Additional webpages being analyzed (besides those listed on PTRC map). For example, if the link on the PTRC map takes you to your PTRC main page but you have a separate Patent page and a separate Trademark page, list those below and analyze them. If the link takes you to the main website for your city, you would want to list below your PTRC page and/or any others where you have P&T resources.

Page name/topic

Page URL

11. Additional webpages being analyzed (besides those listed on PTRC map). For example, if the link on the PTRC map takes you to your PTRC main page but you have a separate Patent page and a separate Trademark page, list those below and analyze them. If the link takes you to the main website for your city, you would want to list below your PTRC page and/or any others where you have P&T resources.

Page name/topic

Page URL

12. Please list any additional webpages where IP is the main focus below.

13. List any additional webpages/LibGuides that you came across that have P&T info, such as class guides. Search for words "patent" and "trademark" individually.

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Resources

Clarification: Some questions refer to the URL that was listed on the PTRC map. In some cases, this will not be a PTRC/P&T webpage, but may be the main library webpage. If the question is about the specific URL, we will answer the question about the web address. If the question is about content of the page, we will look for content on PTRC/P&T/etc pages for that library.

14. Are there proprietary patent and/or trademark databases?

- ◯ Yes (list below proprietary databases specifically for patent and/or trademark research)
- ◯ No

List proprietary databases here

15. Are there subject and/or literature databases? (SciFinder, Academic Search Complete, etc.)

- ◯ Yes (list them below)
- ◯ No

List subject/literature databases here

16. Are the following types of tutorials on the site?

	Homegrown	Created by someone else (vendor, another library, etc)
Video tutorials	☐	☐
Non-video tutorials	☐	☐

Comments

17. Which of the following patent resources are listed on the site?

- [ ] USPTO homepage
- [ ] PatFT/AppFT
- [ ] PubWEST
- [ ] PubEAST
- [ ] Espacenet
- [ ] Patentscope (WIPO)
- [ ] The Lens/Patent Lens
- [ ] Global Patent Search Network
- [ ] Official Gazette for Patents
- [ ] Google Patents
- [ ] Other (please specify)

18. Which of the following trademark resources are listed on the site?

- [ ] TESS
- [ ] Design Search Code Manual
- [ ] Goods and Services Manual (ID Manual)
- [ ] International Schedule of Classes
- [ ] Trademark Official Gazette
- [ ] ROMARIN (WIPO)
- [ ] Other (please specify)

19. Types of materials listed

- [ ] Print books
- [ ] E-books
- [ ] Journals
- [ ] Databases
- [ ] Microform
- [ ] Old CASSIS CDs/DVDs
- [ ] Websites
- [ ] Video (online, VHS, DVD, Blu-ray)
- [ ] Other (please specify)

20. Evidence of local patents in catalog (or a separate listing of local patents on the website) - use #21 to provide more info

- ( ) Yes
- ( ) No

21. Interesting content worth mentioning

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Informative

22. Which of the following can be found on the site? (link or content)

- [ ] Identifies as a PTRC/PTDL
- [ ] Provides background/history of PTRC
- [ ] Definition of patent
- [ ] Utility patent
- [ ] Design patent
- [ ] Plant patent
- [ ] Seven Step Strategy (Patents) - New
- [ ] Seven Step Strategy (Patents) - Old
- [ ] Definition of trademark
- [ ] Service mark
- [ ] Sound mark
- [ ] Color mark
- [ ] Seven Step Strategy (Trademarks)
- [ ] Discusses/displays trademark symbols
- [ ] Trade secret
- [ ] Overall explanation of Intellectual Property
- [ ] Copyright
- [ ] Images or links to sample patents or trademarks
- [ ] Info on CPC (Cooperative Patent Classification)
- [ ] Info on AIA (America Invents Act)
- [ ] Workshops/Programming
- [ ] Listing of inventor/other competitions
- [ ] USPTO contact info/inventor assistance
- [ ] How to find a lawyer
- [ ] Other interesting content (please specify)

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Library/Librarian Information Found on Webpages

23. Which of the following are listed on any PTRC/P&T page concerning the PTRC librarian(s)?

- [ ] Librarian name
- [ ] Address/Office number
- [ ] Phone number
- [ ] Email address
- [ ] Librarian's social media account
- [ ] Other (please specify)

24. Which of the following are listed on any PTRC/P&T page concerning the PTRC library?

- [ ] Library address (link or actual info)
- [ ] Directions (link or actual info)
- [ ] Library phone number (link or actual info)
- [ ] Library Hours (link or actual info)
- [ ] Other (please specify)

25. Is there an official disclaimer on the site explaining what the librarian can and cannot do?

- ( ) Yes
- ( ) No

Comments

26. Other interesting content

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Website Design, Navigation, and Content

27. Word count (copy and paste words from initial screen into Word and do a word count)

28. Image count (from initial screen - not including header/footer)

29. How many dead links are present on the page that is linked from the PTRC map? If this page does not have patent & trademark content (ie it is a main library page), find the main page for that PTRC or the closest thing to a PTRC/patent page and count dead links there.

Use the Google Chrome plugin "Check My Links" which will allow you to be on a webpage, click the plugin and it will automatically highlight broken links in red. Make sure to double check these as sometimes they are not actually broken.

30. What types of webpages exist with PTRC/P&T content from this library?

- [ ] LibGuide
- [ ] "Normal" webpage (ex: http://wcl.library.tamu.edu/patent-trademark.html)
- [ ] Blog
- [ ] Wiki
- [ ] Other types of webpages/content (please specify)

31. Which of the following can be found on the site?

- [ ] PTRC logo
- [ ] Old PTDL logo
- [ ] Still refers to PTRC as the PTDL (Patent & Trademark Depository Library)
- [ ] PTDL still in URL
- [ ] Chat widget
- [ ] PTRC/P&T info or link is found on the library homepage
- [ ] Other interesting content (please specify)

32. Which of the following social networking tools are visible on PTRC, IP, P&T pages?

- [ ] Facebook
- [ ] Twitter
- [ ] LinkedIn
- [ ] Pinterest
- [ ] Flickr
- [ ] Tumblr
- [ ] YouTube
- [ ] Google Plus
- [ ] Other (please specify)

33. How many clicks from the library homepage does it take to get to PTRC/P&T webpage?

34. Does your P&T/PTRC webpage(s) have a date listed when it was last updated?

- ◯ Yes
- ◯ No

35. If any of your P&T/PTRC pages are a LibGuide, please list the most recent "Last Updated" date.

Date / Time

MM/DD/YYYY

36. If any of your P&T/PTRC pages are a blog, please list the most recent date it was updated.

37. If any of your P&T/PTRC pages are anything other than a LibGuide or blog, please list the most recent date it was updated, if a date is listed.

38. Do links from the pages typically open a new window or within the same window (meaning you would need to hit the back button in the browser to go back versus going to another window that is already open)?

- ◯ New window
- ◯ Same window

I want to assess how many URLs (those taken from the PTRC map) are simple and memorable. The following 3 questions will help with this.

39. How many characters (including spaces) are in the URL? (refer to spreadsheet for data)

40. Does the URL have 50 or less characters?

- ◯ Yes
- ◯ No

41. Which of the following best describes the URL?

- ◯ Has characters that identify the page as PTRC, Patent, Trademark, IP, Gov, Business, etc. (ex: http://guides.library.umass.edu/patents)
- ◯ Goes to one of these pages but is not identifiable in the URL - only has random letters or numbers (ex: http://www.bplonline.org/virtual/subjects/Default.aspx?s_page=20)
- ◯ Goes to one of these pages, is not identifiable in the URL (has random characters), but is a LibGuide and you can see a friendly URL towards the top of the page - the librarian just didn't choose to provide that URL to PTRCP.
- ◯ Goes to library homepage (ex: http://www.chipublib.org/)

Comments

42. How can you navigate on the website?

- [ ] Dropdown menus
- [ ] Tabs (along the top)
- [ ] Side menu navigation
- [ ] Table of contents
- [ ] Breadcrumbs

43. Google Searchability - I want to see how easy it is to find P&T content from these PTRC sites using Google. To do so, perform the following searches using Google (within the Google Chrome browser using a "New Incognito Window" - Ctrl + Shift + N - which will have no page visit history, cookies stored, or search history after closing all incognito windows), typing each word, one after the other without using Boolean searching, only using quotes for institution name. Fill in the blank with what number link was the first one that came up for that library's content (not including advertisements, doesn't have to be the URL from PTRC map). If you do not find anything after 5 result pages, type the number 51 (5 pages of 10 results each).

You will be typing the "institution name" + library + either patent, trademark, ptrc, or patent trademark resource center.
Example: "Texas A&M University" library patent

"institution name" + library + patent	
"institution name" + library + trademark	
"institution name" + library + ptrc	
"institution name" + library + patent trademark resource center	

44. Other interesting observations

Appendix B: PTRC Webpages Included in this Content Analysis

	City	State	Institution Name	# Webpages Analyzed
1	Akron	Ohio	Akron-Summit County	3
2	Albany	New York	New York State	7
3	Amherst	Massachusetts	University of Massachusetts Amherst	2
4	Ann Arbor	Michigan	University of Michigan	8
5	Atlanta	Georgia	Georgia Institute of Technology (Georgia Tech)	2
6	Auburn	Alabama	Auburn University	2
7	Austin	Texas	University of Texas	8
8	Baton Rouge	Louisiana	Louisiana State University	3
9	Bayamon	Puerto Rico	University of Puerto Rico Bayamon	1
10	Big Rapids	Michigan	Ferris State University	3
11	Birmingham	Alabama	Birmingham	2
12	Boston	Massachusetts	Boston	4
13	Buffalo	New York	Buffalo & Erie County	2
14	Burlington	Vermont	University of Vermont	4
15	Butte	Montana	Montana Tech	1
16	Charlotte	North Carolina	The University of North Carolina at Charlotte	6
17	Cheyenne	Wyoming	Wyoming	4
18	Chicago	Illinois	Chicago	1
19	Cincinnati	Ohio	Cincinnati and Hamilton County	9
20	Clemson	South Carolina	Clemson University	12
21	Cleveland	Ohio	Cleveland	1
22	College Park	Maryland	University of Maryland	2
23	College Station	Texas	Texas A&M University	6
24	Concord	New Hampshire	University of New Hampshire	6
25	Dallas	Texas	Dallas	3
26	Davenport	Iowa	Davenport	1
27	Dayton	Ohio	Wright State University	2
28	Denver	Colorado	Denver	5
29	Detroit	Michigan	Detroit	1
30	Fairbanks	Alaska	Geophysical Institute, University of Alaska Fairbanks	1
31	Fairfield	Connecticut	Sacred Heart University	3
32	Fort Lauderdale	Florida	Broward County	7
33	Grand Forks	North Dakota	University of North Dakota	9
34	Highland Heights	Kentucky	Northern Kentucky University	24
35	Honolulu	Hawaii	Hawaii	4
36	Houghton	Michigan	Michigan Technological University	5
37	Houston	Texas	Rice University	12
38	Indianapolis	Indiana	Indianapolis	4
39	Jackson	Mississippi	Mississippi Library Commission	2
40	Kansas City	Missouri	Linda Hall Library	1
41	Lincoln	Nebraska	University of Nebraska-Lincoln	6

42	Little Rock	Arkansas	Arkansas	3
43	Los Angeles	California	Los Angeles	3
44	Louisville	Kentucky	Louisville	3
45	Lubbock	Texas	Texas Tech University	4
46	Macomb	Illinois	Western Illinois University	2
47	Madison	Wisconsin	University of Wisconsin-Madison	22
48	Mayaguez	Puerto Rico	University of Puerto Rico Mayaguez	3
49	Milwaukee	Wisconsin	Milwaukee	1
50	Morgantown	West Virginia	West Virginia University	18
51	Nashville	Tennessee	Vanderbilt University	4
52	New York	New York	New York City	6
53	Newark	Delaware	University of Delaware	2
54	Newark	New Jersey	Newark	15
55	Orlando	Florida	University of Central Florida	12
56	Orono	Maine	The University of Maine	3
57	Philadelphia	Pennsylvania	Philadelphia	3
58	Phoenix	Arizona	Arizona	2
59	Piscataway	New Jersey	Rutgers University	5
60	Pittsburgh	Pennsylvania	Pittsburgh	13
61	Providence	Rhode Island	Providence	1
62	Raleigh	North Carolina	North Carolina State University	23
63	Rapid City	South Dakota	South Dakota School of Mines & Technology	1
64	Reno	Nevada	University of Nevada, Reno	2
65	Riverside	California	University of California, Riverside	4
66	Rochester	New York	Monroe County	6
67	Salt Lake City	Utah	University of Utah	4
68	San Antonio	Texas	San Antonio	1
69	San Diego	California	San Diego	1
70	San Francisco	California	San Francisco	7
71	Seattle	Washington	University of Washington	3
72	Smithtown	New York	Smithtown	1
73	St. Louis	Missouri	St. Louis	6
74	Stillwater	Oklahoma	Oklahoma State University	4
75	Sunnyvale	California	Sunnyvale	1
76	University Park	Pennsylvania	Penn State University	6
77	Washington	District of Columbia	Howard University	4
78	West Lafayette	Indiana	Purdue University	1
79	Wichita	Kansas	Wichita State University	5
			TOTAL	394